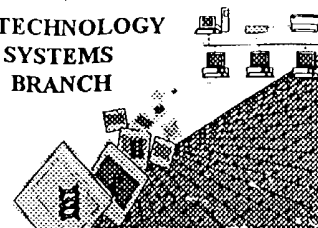


BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/750,939
Source: FEWO
Date Processed by STIC: 7/14/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - cPAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10/750,939

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

- 2 Invalid Line Length The rules require that a line **not exceed** 72 characters in length. This includes white spaces.

- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use **space characters**, instead.

- 4 Non-ASCII The submitted file was **not** saved in ASCII(DOS).text, as **required** by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for **Artificial or Unknown sequences.**

- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for **each** skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.

- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000

- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is **MANDATORY** if n's or Xaa's are present.
 In <220> to <223> section, please explain location of **n** or **Xaa**, and which residue **n** or **Xaa** represents.

- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only **valid** <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence

- 11 ☒ Use of <220> Sequence(s) 1-9, 12-15, 17-20 missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is **MANDATORY** if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 07/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

- 13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



IFWO

RAW SEQUENCE LISTING

DATE: 01/14/2004

PATENT APPLICATION: US/10/750,939

TIME: 11:00:18

Input Set : A:\niles non-provisional-US.txt

Output Set: N:\CRF4\01142004\J750939.raw

3 <110> APPLICANT: Niles, Edward
 5 <120> TITLE OF INVENTION: Novel Inhibitors of Poxvirus Replication
 7 <130> FILE REFERENCE: 11520.0333
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/750,939
 10 <141> CURRENT FILING DATE: 2004-01-02
 12 <150> PRIOR APPLICATION NUMBER: US/60/437,945
 13 <151> PRIOR FILING DATE: 2003-01-02
 15 <160> NUMBER OF SEQ ID NOS: 20
 17 <210> SEQ ID NO: 1
 18 <211> LENGTH: 7
 19 <212> TYPE: RNA
 20 <213> ORGANISM: Artificial Sequence
 22 <220> FEATURE:
 23 <221> NAME/KEY: unsure
 24 <222> LOCATION: 6
 25 <223> OTHER INFORMATION: n is g,a,u or c
 27 <400> SEQUENCE: 1
 W--> 28 uuuuuuu 7
 30 <210> SEQ ID NO: 2
 31 <211> LENGTH: 7
 32 <212> TYPE: DNA
 33 <213> ORGANISM: artificial sequence
 35 <220> FEATURE:
 36 <223> OTHER INFORMATION:
 W--> 38 <400> 2
 39 ttttttt 7
 42 <210> SEQ ID NO: 3
 43 <211> LENGTH: 22
 44 <212> TYPE: RNA
 45 <213> ORGANISM: artificial sequence
 47 <220> FEATURE:
 48 <221> NAME/KEY: unsure
 49 <222> LOCATION: 14
 50 <223> OTHER INFORMATION: n is g,a,u or c
 52 <400> SEQUENCE: 3
 W--> 53 gggccggcguu uuunuuugcg uu 22
 56 <210> SEQ ID NO: 4
 57 <211> LENGTH: 22
 58 <212> TYPE: RNA
 59 <213> ORGANISM: artificial sequence
 61 <220> FEATURE:
 62 <223> OTHER INFORMATION:
 W--> 64 <400> 4

Does Not Comply
Corrected Diskette Needed

Please explain, see item # 11 on error summary sheet.

Per New Sequence Rules, if (213) Response is Artificial Sequence/Unknown please explain in section (220) - (223) please see item # 11 on error summary sheet.

please explain

SAME ERROR

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/750,939

DATE: 01/14/2004

TIME: 11:00:18

Input Set : A:\niles non-provisional-US.txt

Output Set: N:\CRF4\01142004\J750939.raw

65 gggccggcaa uuauuugcg uu 22
68 <210> SEQ ID NO: 5
69 <211> LENGTH: 36
70 <212> TYPE: RNA
71 <213> ORGANISM: artificial sequence - please explain, same error
73 <220> FEATURE:
74 <221> NAME/KEY: unsure
75 <222> LOCATION: 23
76 <223> OTHER INFORMATION: n is g,a,u or c
78 <400> SEQUENCE: 5
W--> 79 gggcgaaug ggcggcguu uuuuugcg ugaau 36
82 <210> SEQ ID NO: 6
83 <211> LENGTH: 36
84 <212> TYPE: RNA
85 <213> ORGANISM: artificial sequence - same error
87 <220> FEATURE:
W--> 88 <221> NAME/KEY:
89 <222> LOCATION:
90 <223> OTHER INFORMATION: uracils at 8,9,18-26, 30, 31, 35 and 36 are brominated
92 <400> SEQUENCE: 6
93 gggcgaaug ggcggcguu uuuuugcg ugaau 36
95 <210> SEQ ID NO: 7
96 <211> LENGTH: 27
97 <212> TYPE: DNA
98 <213> ORGANISM: artificial sequence
100 <220> FEATURE:
101 <223> OTHER INFORMATION: - same error
W--> 103 <400> 7
104 aattgggccc gcttttttt tgcgttg 27
107 <210> SEQ ID NO: 8
108 <211> LENGTH: 22
109 <212> TYPE: DNA
110 <213> ORGANISM: artificial sequence - same error
112 <220> FEATURE:
W--> 113 <221> NAME/KEY:
114 <222> LOCATION:
115 <223> OTHER INFORMATION: 9-17 is deoxyuracil
117 <400> SEQUENCE: 8
118 gggccggcuu uuuuuugcg uu 22
121 <210> SEQ ID NO: 9
122 <211> LENGTH: 22
123 <212> TYPE: RNA
124 <213> ORGANISM: artificial sequence - same error
126 <220> FEATURE:
W--> 127 <221> NAME/KEY:
128 <222> LOCATION:
129 <223> OTHER INFORMATION: 19-17 is brominated deoxyuracil
131 <400> SEQUENCE: 9
132 gggccggcuu uuuuuugcg uu 22

RAW SEQUENCE LISTING

DATE: 01/14/2004

PATENT APPLICATION: US/10/750,939

TIME: 11:00:18

Input Set : A:\niles non-provisional-US.txt

Output Set: N:\CRF4\01142004\J750939.raw

134 <210> SEQ ID NO: 10
135 <211> LENGTH: 22
136 <212> TYPE: DNA
137 <213> ORGANISM: artificial sequence
139 <220> FEATURE:
W--> 140 <221> NAME/KEY:
141 <222> LOCATION:
142 <223> OTHER INFORMATION: T5NT
144 <400> SEQUENCE: 10
145 gggccggcgtt tttttttgcg uu 22
148 <210> SEQ ID NO: 11
149 <211> LENGTH: 22
150 <212> TYPE: DNA
151 <213> ORGANISM: artificial sequence
153 <220> FEATURE:
W--> 154 <221> NAME/KEY:
155 <222> LOCATION:
156 <223> OTHER INFORMATION: mutant T5NT
158 <400> SEQUENCE: 11
159 gggccggcaa ttattatgcg tt 22
161 <210> SEQ ID NO: 12
162 <211> LENGTH: 17
163 <212> TYPE: RNA
164 <213> ORGANISM: artificial sequence - SAME error
166 <220> FEATURE:
167 <221> NAME/KEY: unsure
168 <222> LOCATION: 10
169 <223> OTHER INFORMATION: n is a,g,u or c
171 <400> SEQUENCE: 12
W--> 172 cggcuuuuuu uuugcgu 17
174 <210> SEQ ID NO: 13
175 <211> LENGTH: 13
176 <212> TYPE: RNA
177 <213> ORGANISM: artificial sequence - SAME error
179 <220> FEATURE:
180 <221> NAME/KEY: unsure
181 <222> LOCATION: 8
182 <223> OTHER INFORMATION: n is a,g, u or c
184 <400> SEQUENCE: 13
W--> 185 gcuuuuuuuu ugc 13
188 <210> SEQ ID NO: 14
189 <211> LENGTH: 9
190 <212> TYPE: RNA
191 <213> ORGANISM: artificial sequence - SAME error
193 <220> FEATURE:
194 <221> NAME/KEY: unsure
195 <222> LOCATION: 7 - there is a "u" at this location.
196 <223> OTHER INFORMATION: n is a,g,u or c
198 <400> SEQUENCE: 14

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/750,939

DATE: 01/14/2004

TIME: 11:00:18

Input Set : A:\niles non-provisional-US.txt

Output Set: N:\CRF4\01142004\J750939.raw

W--> 199 uuuuuuuuu 9

202 <210> SEQ ID NO: 15

203 <211> LENGTH: 7

204 <212> TYPE: RNA

205 <213> ORGANISM: artificial sequence

207 <220> FEATURE:

208 <221> NAME/KEY: unsure

209 <222> LOCATION: 6

210 <223> OTHER INFORMATION: n is a,g,u or c

212 <400> SEQUENCE: 15

W--> 213 uuuuuuuu 7

216 <210> SEQ ID NO: 16

217 <211> LENGTH: 7

218 <212> TYPE: RNA

219 <213> ORGANISM: artificial sequence

221 <220> FEATURE:

W--> 222 <221> NAME/KEY:

223 <222> LOCATION:

224 <223> OTHER INFORMATION: mutant 7-mer

226 <400> SEQUENCE: 16

227 uuuuuuuu 7

229 <210> SEQ ID NO: 17

230 <211> LENGTH: 22

231 <212> TYPE: DNA

232 <213> ORGANISM: artificial sequence

234 <220> FEATURE:

235 <221> NAME/KEY: unsure

236 <222> LOCATION: 14

237 <223> OTHER INFORMATION: n is g,a,u or c; 1-8 and 18-22 are DNA

239 <400> SEQUENCE: 17

W--> 240 gggccggcuu uuuuuuugcg (uu) 22

242 <210> SEQ ID NO: 18

243 <211> LENGTH: 22

244 <212> TYPE: RNA

245 <213> ORGANISM: artificial sequence

247 <220> FEATURE:

248 <221> NAME/KEY: unsure

249 <222> LOCATION: 14

250 <223> OTHER INFORMATION: n is g,a,u or c; 1-8 and 18-22 are 2'O methylated; 1-8 and 17-22 have phosphorothiol bonds

252 <400> SEQUENCE: 18

W--> 253 gggccggcuu uuuuuuugcg uu 22

255 <210> SEQ ID NO: 19

256 <211> LENGTH: 22

257 <212> TYPE: DNA

258 <213> ORGANISM: artificial sequence

260 <220> FEATURE:

261 <221> NAME/KEY: unsure

262 <222> LOCATION: 14

263 <223> OTHER INFORMATION: n is g,a,u or c; 1-8 and 18-22 are phosphorothiol; 9-17 are

RNA

18-19?

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/750,939

DATE: 01/14/2004

TIME: 11:00:18

Input Set : A:\niles non-provisional-US.txt

Output Set: N:\CRF4\01142004\J750939.raw

265 <400> SEQUENCE: 19
W--> 266 gggcggcuu uuuuuuugcg uu 22

268 <210> SEQ ID NO: 20

269 <211> LENGTH: 7

270 <212> TYPE: RNA

271 <213> ORGANISM: artificial sequence

273 <220> FEATURE:

274 <223> OTHER INFORMATION:

W--> 276 <400> 20

277 uuuuauu 7

same error

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/750,939

DATE: 01/14/2004
TIME: 11:00:19

Input Set : A:\niles non-provisional-US.txt
Output Set: N:\CRF4\01142004\J750939.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 6 ✓
Seq#:3; N Pos. 14 ✓
Seq#:5; N Pos. 23 ✓
Seq#:12; N Pos. 10 ✓
Seq#:13; N Pos. 8 ✓
Seq#:14; N Pos. 6 ✓
Seq#:15; N Pos. 6 ✓
Seq#:17; N Pos. 14 ✓
Seq#:18; N Pos. 14 ✓
Seq#:19; N Pos. 14 ✓

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:18; Line(s) 250

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/750,939

DATE: 01/14/2004

TIME: 11:00:19

Input Set : A:\niles non-provisional-US.txt

Output Set: N:\CRF4\01142004\J750939.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number
L:28 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:38 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:2,Line#:36
L:53 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:64 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:4,Line#:62
L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:88 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6
L:103 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:7,Line#:101
L:113 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:8
L:127 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:9
L:140 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:10
L:154 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:11
L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:213 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:222 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:16
L:240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:276 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:20,Line#:274